

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region III - 6th & Walnut Sts.  
Philadelphia, Pa. 19106

To: Butch  
1-16-85

SUBJECT: Toxic hazards at FMC Baltimore

FROM: Dick Brunner, Toxicologist  
Site Investigation and Support (3HW23) *DB*

TO: Neil Swanson, Environmental Scientist  
Site Investigation and Support (3HW23)

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(Red)



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The issue that must be considered concerning this site involves the risk presented by the considerable contamination of site soils. There is a rather remarkable variety of toxic substances in these soils and their continued presence, despite the fact that many are thought to be degradable, is curious.

The reviewer correctly assesses the presence of DDT, DDD and DDE as little or no risk at the levels detected in these stable soils. The report suggests that these substances may be ingested from residues in meat, fish, poultry and dairy products but this possibility seems unlikely since these organochlorides have not been used since 1972. The human daily consumption of 49 ug/l of DDT and its metabolites was estimated for 1972 and is probably far less than that amount today.

The identification of three nontarget pesticides (Appendix C) is a credit to the analytical laboratory. These substances were Tedion, Nialate, and Dinoseb. Although Tedion is only listed as very toxic (LD<sub>50</sub> = 566 ug/kg), it was found in very high concentrations in soil samples (230ppm).

Nialate is an extremely toxic cholinesterase inhibitor and, as the reviewer pointed out, can be dangerous in extremely minor doses. As little as 100 ug/kg has caused severe human health problems.

Dinoseb has been determined to be an irritant, to have caused tumors in mice, and is extremely toxic. It would appear that there are adequate data indicating that there is a potential impact on those who occupy this site, although the report is correct in asserting that there are insufficient information for a thorough assessment in this regard. It should have been pointed out that a real risk does appear to exist through the inhalation of windborne particles and possible contact by the skin.

The very high concentrations of lead in soil samples could only be from contaminating activities and add to the hazardous nature of the soils of this facility. The relative stability of the soils of this facility and the nature of its use would be an important factor in the determination of the risk it presents to those who must occupy it.